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A redescription of *Taenia taxidiensis* Skinker, 1935. ROBERT RAUSCH, Department of Veterinary Science, University of Wisconsin, Madison.¹

Since the original description of *Taenia taxidiensis* Skinker, 1935,² was based on an incomplete and apparently immature cestode, a redescription seems desirable.

The following description is based on 28 cestodes, taken from three infected badgers, *Taxidea taxus* (Schreber), all collected in southern Wisconsin. Of these, only one strobila had gravid segments, the others being immature. Most of the data given below are based on the single mature specimen, with additional measurements, where possible, from the immature worms. No sections were made of these specimens, and the measurements given were taken from stained whole-mounts.

Taenia taxidiensis Skinker, 1935

Description.—Strobila 480.0 mm. long, with greatest width, about 3 mm., attained in post-mature segments. Segments increase in length toward end of strobila; gravid segments become narrower, with a length of from 8.0 to 8.5 mm. Strobila with 242 segments; in addition, a few shed proglottids were found in the feces of the host. Calcareous corpuscles abundant.

Scolex (Fig. 1) averages 570 μ in diameter (497 to 596 μ); suckers average 156 μ in diameter. Rostellum armed with from 20 to 27 hooks, arranged in a single row, and from 79 to 99 μ long. Average length of hooks 90 μ ; handle and guard nearly of equal length; the former averages 54 μ and the latter 46 μ , both about 16 μ wide at base, tapering toward end to about 10 μ ; blade of hook strongly arched.

Ventral excretory canals about 142 μ in diameter; somewhat variable in diameter in the same segment, and tending to narrow at segmental borders. Transverse canals of same diameter as ventral canals. Dorsal canals sinuous, with average diameter of 20 μ ; situated medial to ventral canals.

Genital pores irregularly alternate, situated slightly anterior to middle of segment; genital papillae prominent; genital atrium about 56 μ deep. Cirrus sac, from 240 to 330 μ long by about 100 μ wide, extending to, or slightly past, marginal edge of poral ventral excretory canal. Extruded cirrus about 70 μ long by 56 μ wide; without spines. Ductus ejaculatorius somewhat coiled within cirrus sac; vas deferens forms numerous coils medial to ventral excretory canal. Testes, from 200 to about 300 in number, ovoid, measuring in mature segments from 70 to 90 μ , confined to area between ventral excretory canals, and extending posteriorly to slightly past margin of vitelline gland; some overlap the latter, and

¹ Section of Parasitology, B. B. Morgan, In Charge. This work supported in part by the Research Committee of the Graduate School from funds supplied by the Wisconsin Alumni Research Foundation.

² Skinker, M. S. 1935. Two new species of tapeworms from carnivores and a redescription of *Taenia laticollis* Rudolphi, 1819. Proc. U. S. Natl. Mus. 83(2980): 211-220.

appear to be confluent at its posterior margin. Area around lobes of ovary, and between ovary and vitelline gland, free from testes. A solid band of testes extends from anterior edge of ovary forward to margin of the segment, overlapping the uterus.

Vagina, of nearly equal diameter throughout, opening posterior to cirrus sac, and at same level; course direct, inward and downward, without undulations.

Ovarian lobes hemispherical; aporal lobe always larger. Vitelline gland about same size as smaller lobe of ovary, and usually extends full width of latter. Mehlis' gland spherical; about 112μ in diameter. Uterus extends to anterior margin of segment; lateral branches appear first at anterior end, average 10 on a

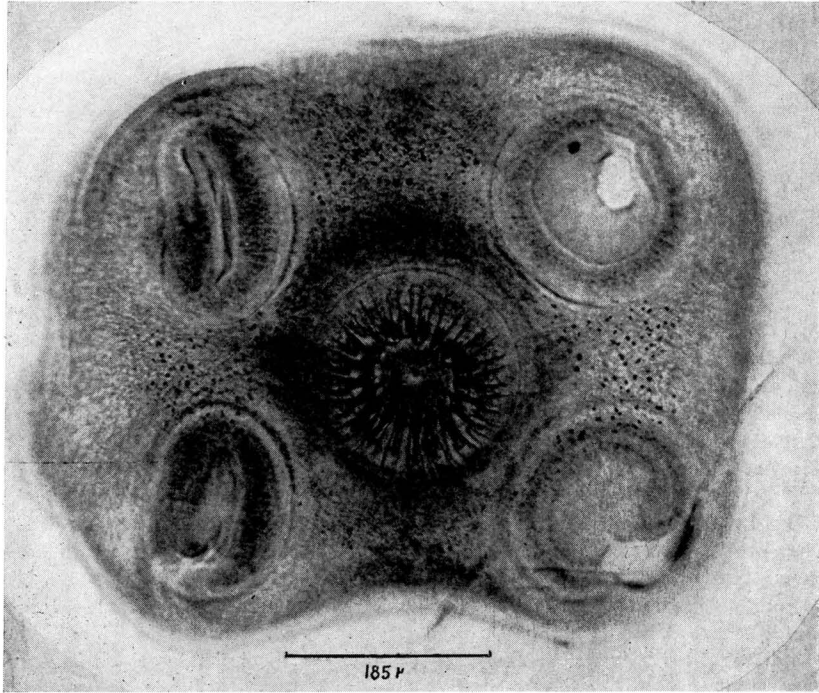


FIG. 1. *En face* view of scolex of *Taenia taxidiensis* showing single row of hooks. Photomicrograph by D. H. Ferris.

side, with secondary branching as segments become older. Uterine branches recognizable in terminal gravid segments.

Eggs spherical, very numerous; shell pitted; average diameter 31μ ; embryo averages 20μ in diameter.

Host.—*Taxidea taxus* (Schreber).

Habitat.—Small intestine.

Locality.—Described from Granite County, Montana. Recorded by the present writer from Dane and Sauk Counties, Wisconsin.

DISCUSSION

The single row of hooks apparently is unique for North American cestodes of the genus *Taenia*. It was at first the opinion of the writer that one row of hooks had been lost, although there was no apparent cause for this. Subsequent examinations of additional material, obtained from other host animals, disclosed

the scolices armed with a single row of hooks to be complete. Ortlepp³ lists only one species, *Taenis monostephanos* Linstow, 1905, as having a single row of hooks. This species was described from the lynx in Russia.

Some of the measurements given in the present paper differ considerably from those in the original description, but this can probably be attributed to normal variation, and to the fact that the original description was based on an immature specimen.

The intermediate host of *T. taxidiensis* is not known; however, considering the food-habits of the badger, it may be a species of ground squirrel.

³ Ortlepp, R. J. 1938. South African helminths—Part II. Some taenias from large wild carnivores. Onderstepoort Jour. Vet. Sci. 10: 253–274.